THE CITY OF SAN DIEGO

City of San Diego
Planning & Development Review
Building Development Review
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Building Newsletter 8-1

Floor and Wall Finishes in Shower and Water Closet Compartments

Interpretations of State and Local Building Codes
1998 California Building Code: Chapter 8
Revision Date: July 1999

Section 807.1 of the Building Code addresses requirements for surface materials on the walls and floors of water closet compartments and shower areas.

I. Floor Finish Materials

Water closet floors in other than dwelling units and individual units of single room occupancy (SRO) hotels must have a smooth, hard nonabsorbent surface extending at least 5 inches upward onto the walls. Examples of approved floor finish materials are:

A. Portland cement

B. Concrete (troweled smooth)

C. Ceramic tile (glazed or unglazed)

D. Terrazzo (cement base)

E. Marble blocks or slabs

F. Sheet vinyl with fully-coved or top-set base

G. Magnesite composition

H. Approved prefabricated shower pans or stalls

II. Wall Finish Materials

Walls within 2 feet of the front and sides of urinals and water closets in other than dwelling units, guest rooms or single-water closet toilet rooms which are not accessible to the public must have a smooth, hard nonabsorbent surface to a height of 4 feet. Except for structural elements, the materials in such walls shall not be adversely affected by moisture. Examples of approved wall finish materials are:

A. Concrete or concrete block covered with waterproof paint or plastic.

B. Portland cement plaster on metal lath, wire lath, or wire fabric, troweled smooth and painted.

C. Approved prefabricated metal toilet compartments (painted) or approved prefabricated shower stalls.

D. Ceramic, plastic or enamel finish metal tile.

E. Marble or simulated marble slabs or blocks.

F. Stainless steel.

G. Tempered masonite with factory-applied baked paint or plastic. See approval for specific area of use.

H. Sheet vinyl and vinyl *wall covering*. Vinyl wall covering is allowed within individual hotel/motel guest rooms around water closets and urinals, but not in shower areas.

I. Materials specifically approved as wall finish materials by an approved testing agency.

III. Shower Finish Materials

Showers in all occupancies must be finished as specified in Sections I and II above to a height of not less than 70 inches above (Section 807.1.3) the drain inlet. Except for structural elements, the materials including substrates in such walls shall not be adversely affected by moisture.

IV. Framing

When framing is spaced more than 16 inches on center, suitable blocking or backing shall be located approximately 1 inch above the top of the tub or receptor and at the horizontal gypsum board joints in the area to receive tile.

When the surface finish is ceramic tile, the spacing of studs $2^{1}/_{2}$ inches deep or less should not exceed 16 inches on center. Studs $3^{1}/_{2}$ inches or more in depth may be spaced 24 inches on center provided blocking is utilized as described above.

Appropriate blocking, headers or supports shall be provided to support the tub and other plumbing fixtures and to receive soap dishes, grab bars, towel racks and similar items. Intersecting walls shall have multiple studs to provide rigid support at corners.

V. Backing Methods

The following backing methods are acceptable for installation of wall finish materials listed in Section II, Items D through I:

A. Portland cement plaster may be applied to framing in accordance with applications for exterior plaster. Note that this is recommended as the best material for installation of ceramic tile. See UBC Sections 2508 and 1402.1.

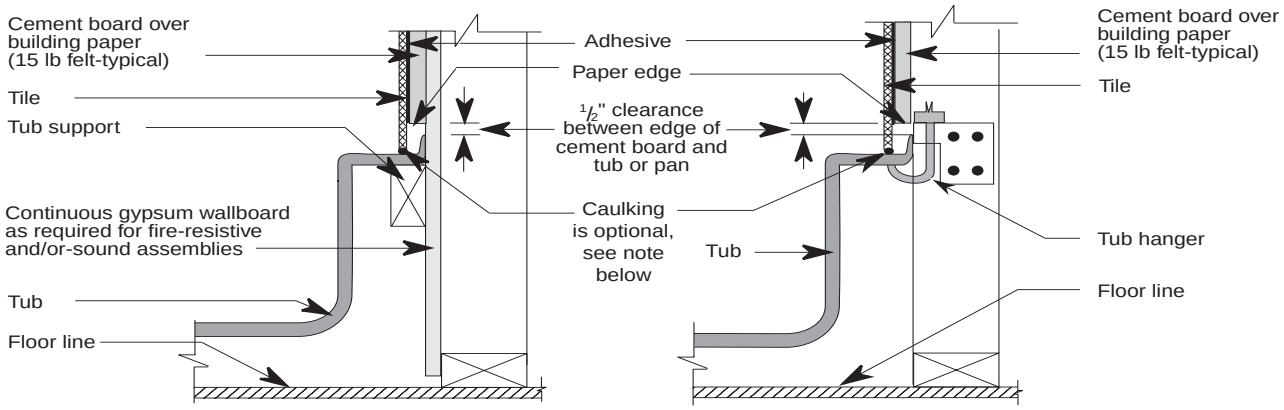
B. Three-eighths-inch exterior grade plywood (grade C-C minimum, or interior grade plywood with exterior glue) may be applied to framing as a backing. All joints must be caulked on framing members for items F and G only.

C. In the immediate area of tub or shower ICBO recognized Portland Cement Boards backed by building paper may be used.

D. Bathroom walls as a minimum may use water resistant board meeting ASTM C630 except in the immediate area of the tub or shower.

E. Architect shall supply wall sections detailing tub/shower and wall interface.

Figure 1



Note: If the tub has a flange edge as shown, then caulking is not recommended. Refer to the tub manufactuer's installation guidelines for their recommended waterproofing method.

VI. Water Closet Compartments

Section 807.1 refers to water closet compartments, not the entire toilet room. Accordingly, only those areas enclosing the toilet fixtures and adjoining urinals need comply. Other walls of public toilet rooms may, however, be subject to regulations set forth by Section 2306.13. When no separate water closet compartments are provided, the required protection shall extend 24 inches on each side of the fixture and 24 inches beyond the front portion of the fixture and shall be finished to a height of 48 inches. See Figure 2.

All wall surfaces not specifically requiring protection against water intrusion as outlined in Sections 807.1 and 2306.13 may be finished with gypsum lath and gypsum plaster, troweled smooth and painted. Water-resistant gypsum backing board may be applied as a base for tile or wall panels in water closets using C630 of the American Society for Testing and Materials (ASTM) as a guideline standard. See Section 2512 for restrictions.

VII. Unacceptable Materials

Typical materials which are not acceptable for use as a finished surface are:

A. Asphalt or vinyl tile.

B. Wood or wood products (exception: tempered masonite).

C. Gypsum board of any type including wallboard, sheathing, and gypsum lath.

D. Gypsum plaster, including Keene's cement plaster.

VIII. Inspections

At the time of drywall inspection, this department will inspect the sealing of all cut edges and utility holes and joints.

Figure 2